REMARKS

This Amendment and Response is submitted in reply to the Office Action dated October 28, 2009, in which the Examiner:

objected to the information disclosure statement (IDS);

objected to claims 1, 2, 4, 5, 7-12, 14, 15, 17, 19, 20, 21 and 23-30;

rejected claims 1-12, 15, 17-27 and 29 under 35 U.S.C. § 112, second paragraph, as indefinite;

rejected claims 17-27 under 35 U.S.C. § 101 as directed to non-statutory subject matter; and

rejected claims 1-30 under 35 U.S.C. § 103(a) as unpatentable over U.S. Patent Application Publication No. 2003/0167445 to Su et al. in view of U.S. Patent Application Publication No. 2003/0088543 to Skeen et al.

Applicant respectfully addresses and/or traverses the objections and rejections below. Claims 1-30 are currently pending. This Amendment cancels claims 2-5, 18, 19, 21, 24 and 27, and amends claims 1, 6-17, 20, 22-23, 25-26 and 28-30, leaving claims 1, 6-17, 20, 22-23, 25-26 and 28-30 pending upon entrance of this Amendment. Claims 1, 12, 17, 23 and 28 are independent claims.

The Examiner objected to the IDS on the basis that the relevant pages of the Hernandez document were not listed. Applicant notes that the present application is a §371 national stage application, and respectfully submits that the Hernandez document was listed on the PTO/SB/08a on the basis of its citation in the International Search Report (ISR). Applicant does not know what the relevant pages are, beyond what may have been indicated in the ISR. However, pursuant to MPEP 609.03, the Examiner is required to consider the documents cited in the ISR, where

both the ISR and copies of the document are present in the file (as is the case with the current application). Additionally, since the Hernandez document was cited in a separate list in compliance with 37 C.F.R. § 1.98(a)(1), it should be listed on any patent resulting from the present application.

For the foregoing reasons, Applicant respectfully requests that the objection to the IDS be withdrawn, and that the Examiner indicate consideration of the Hernandez document in the next Office communication.

Claims 1, 2, 4, 5, 7-12, 14, 15, 17, 19, 20, 21 and 23-30 were objected to based on a general lack of line indentations and the presence of multiple periods in claim 29. Applicant respectfully submits that both of these points have been addressed by the present Amendment, and requests that the claim objections be withdrawn.

Claims 1-11, 15 and 17-27 were rejected under 35 U.S.C. § 112, second paragraph, as indefinite, being "...generally narrative and indefinite, failing to conform with current U.S. practice" and appearing "...to be a literal translation into English from a foreign document and are replete with grammatical and idiomatic errors." Additionally, the Examiner specifically referred to the use of apostrophes, parentheses and ellipses ("...") in the claims.

Applicant respectfully submits that Americans frequently find Australians difficult to understand, but would stop short of classifying Australian English as a foreign language, despite the tendency of Australians to refer to what is clearly "soccer" as "football."

These points notwithstanding, Applicant has extensively amended the claims for greater conformity with current U.S. practice, including removing all apostrophes and ellipses, and to confining the use of parentheses to what the Examiner has deemed acceptable. Accordingly, Applicant respectfully requests that the rejection

of claims 1-11, 15 and 17-27 under 35 U.S.C. § 112, second paragraph, be withdrawn.

Claim 12 was rejected under 35 U.S.C. § 112, second paragraph, as indefinite on the basis of claiming both an apparatus and method steps for using the apparatus.

Applicant respectfully submits that claims 12 is not an apparatus claim, but instead is a method claim, and has amended the preamble of claim 12 to clarify this. Accordingly, Applicant respectfully requests the rejection of claim 12 under 35 U.S.C. § 112, second paragraph, be withdrawn.

Claim 29 was rejected under 35 U.S.C. § 112, second paragraph, as indefinite on the basis of relative claim terminology, such as "higher". While Applicant concedes that relative terminology, standing alone, might render a claim definite, comparatively relative terminology does not. In other words, a claim in which A is higher than B is not indefinite, even though a specific height is not prescribed for A or B. Likewise, with claim 29, the relative terminology is not present in isolation, but provides a basis for comparison. Accordingly, Applicant respectfully requests the rejection of claim 29 under 35 U.S.C. § 112, second paragraph, be withdrawn.

Claims 17-22 were rejected under 35 U.S.C. § 101 as directed to non-statutory subject matter. This rejection appears to hinge on the Examiner's assertion that a recited ontology deconstruction and reconstructing transfer mechanism can be implemented in "**software OR hardware.**" (Office Action, p. 6.) Applicant is unsure what the significance of this assertion is. A system involving the use of software to perform one or more of its functions necessarily requires the use of a computer (broadly understood) to implement the software. In fact, independent claim 17

expressly recites "a _computer-implemented_ ontology deconstruction and reconstruction transfer mechanism..." (_emphasis_ added).

     While it is not clear to Applicant how a software-based system could _ever_ only include software without some machine to implement it, this is clearly not an issue with the current claim 17 which expressly recites computer implementation – thus the system of claim 17 clearly includes a computer. Accordingly, Applicant respectfully submits that claim 17 recites statutory subject matter, and requests the rejection of claim 17 (and its dependent claims 18-22) under 35 U.S.C. § 101, be withdrawn.

     Claims 23-27 were rejected under 35 U.S.C. § 101 as directed to non-statutory subject matter. The amended independent claim 23 recites a computer readable medium having a program encoded thereon adapted for use by a processor to perform various functions. That one or more of these functions may involve the further implementation of a transfer mechanism does not somehow change the nature of the subject matter essentially being claimed – namely, an encoded computer readable medium. Applicant is not trying to claim some form of disembodied energy, and notes that the execution of program instructions on any computer readable medium will involve the use of energy in various ways – yet this has never served as the basis for a blanket rejection of computer readable medium claims in the past. Accordingly, Applicant respectfully submits that claim 23 recites statutory subject matter, and requests the rejection of claim 23 (and its dependent claims 24-27) under 35 U.S.C. § 101, be withdrawn.

     Claim 1 was rejected under 35 U.S.C. § 103(a) as unpatentable over Su in view of Skeen. A rejection under § 103 is improper unless the prior art references, alone or in combination, teach or suggest each and every claim recitation. Where the teachings of one or more prior art references must be modified or combined to arrive at the claimed invention, there must a valid rationale for doing so.

Applicant's amended claim 1 recites, in part, a method of translating a first schema of data having one structure or semantics into a second schema of data having a second structure or semantics, wherein use of the deconstruction and reconstruction transfer mechanism includes:

machine-reading tags;

interpreting the data format which has been marked up by these tags and detecting its inherent structures or semantics to be included in the interlanguage DTD; and

using the interlanguage DTD to transfer the data of the first schema into the second schema;

wherein the transfer mechanism includes a superordination mechanism and a composition mechanism; and

wherein within the superordination mechanism there are the submechanisms of hyponymy, hyperonymy, co-hyperonomy, antonymy and series.

Neither Su nor Skeen, nor the combination thereof, teaches or suggests each and every recitation of Applicant's amended claim 1. For instance, neither reference teaches or suggests a superordination mechanism having all the submechanisms of hyponymy, hyperonymy, co-hyperonomy, antonymy and series.

In connection with Applicant's previous claim 5 (now cancelled), the Examiner appeared to assert that Su disclosed at least one of these submechanisms (see Office Action, p. 22). It is not clear to Applicant which one of the superordination submechanisms the Examiner asserted was disclosed, but respectfully submits Su clearly does not disclose _all_ of the recited superordination submechanisms.

Nothing in the record suggests that a person having ordinary skill in the art would consider all of the recited superordination submechanisms, much less modify Su and/or Skeen to include them.

Thus, neither Su nor Skeen, nor the combination thereof, teaches of suggests each and every recitation of Applicant's amended claim 1, nor is there any valid

rationale to modify or combine the prior art references to do so. Accordingly, Applicant respectfully submits that the rejection of claim 1 under 35 U.S.C. § 103(a) as unpatentable over Su in view of Skeen is improper for at least these reasons and should be withdrawn.

Claims 6-11 were also rejected under 35 U.S.C. § 103(a) as unpatentable over Su in view of Skeen. These claims all depend, directly or indirectly, from claim 1 and include additional recitations thereto. Accordingly, Applicant respectfully submits that the rejection of claims 6-11under 35 U.S.C. § 103(a) as unpatentable over Su in view of Skeen is improper for at least the reasons stated in connection with claim 1, and should be withdrawn.

Claim 12 was rejected under 35 U.S.C. § 103(a) as unpatentable over Su in view of Skeen. Applicant's amended claim 12 recites, in part, a method of interpellating source data into an interlanguage DTD format for use in transferring data marked up in a first schema of data having one structure or semantics into a second schema of data having a second structure or semantics, the method comprising applying a plurality of filters including a delicacy filter, a synonymy filter, a contiguity filter and a subset filter.

Neither Su nor Skeen, nor the combination thereof, teaches or suggests each and every recitation of Applicant's amended claim 12. For instance, neither reference teaches or suggests applying a delicacy filter, a synonymy filter, a contiguity filter and a subset filter.

The Examiner appeared to assert that Skeen discloses application of one of these filters (see Office Action, p. 13). It is not clear to Applicant which one of the filters the Examiner asserted is disclosed by Skeen, but respectfully submits Skeen clearly does not disclose application of _all_ of the recited filters.

Nothing in the record suggests that a person having ordinary skill in the art would consider all of the recited filters, much less modify Su and/or Skeen to include them.

Thus, neither Su nor Skeen, nor the combination thereof, teaches of suggests each and every recitation of Applicant's amended claim 12, nor is there any valid rationale to modify or combine the prior art references to do so. Accordingly, Applicant respectfully submits that the rejection of claim 12 under 35 U.S.C. § 103(a) as unpatentable over Su in view of Skeen is improper for at least these reasons and should be withdrawn.

Claims 13-16 were also rejected under 35 U.S.C. § 103(a) as unpatentable over Su in view of Skeen. These claims all depend, directly or indirectly, from claim 12 and include additional recitations thereto. Accordingly, Applicant respectfully submits that the rejection of claims 13-16 under 35 U.S.C. § 103(a) as unpatentable over Su in view of Skeen is improper for at least the reasons stated in connection with claim 12, and should be withdrawn.

Claim 17 was rejected under 35 U.S.C. § 103(a) as unpatentable over Su in view of Skeen. Applicant's amended claim 17 recites, in part, a system for translating a first schema of data having one structure or semantics into a second schema of data having a second structure or semantics by using a computer-implemented ontology deconstruction and reconstruction transfer mechanism, wherein the transfer mechanism includes overarching superordination and composition mechanisms, and wherein within the composition mechanism there are included submechanisms of meronymy, co-meronymy, consistency, and collectivity.

Neither Su nor Skeen, nor the combination thereof, teaches or suggests each and every recitation of Applicant's amended claim 17. For instance, neither

18

reference teaches or suggests a composition mechanism having all the submechanisms of meronymy, co-meronymy, consistency, and collectivity.

In connection with Applicant's previous claim 21 (now cancelled – also referencing the similar recitations of Applicant's previous claim 7), the Examiner appeared to assert that Su discloses at least one of these submechanisms (see Office Action, pp. 23, 34). It is not clear to Applicant which one of the composition submechanisms the Examiner asserted is disclosed, but respectfully submits Su clearly does not disclose <u>all</u> of the recited composition submechanisms.

Nothing in the record suggests that a person having ordinary skill in the art would consider all of the recited combination submechanisms, much less modify Su and/or Skeen to include them.

Thus, neither Su nor Skeen, nor the combination thereof, teaches of suggests each and every recitation of Applicant's amended claim 17, nor is there any valid rationale to modify or combine the prior art references to do so. Accordingly, Applicant respectfully submits that the rejection of claim 17 under 35 U.S.C. § 103(a) as unpatentable over Su in view of Skeen is improper for at least these reasons and should be withdrawn.

Claims 18-22 were also rejected under 35 U.S.C. § 103(a) as unpatentable over Su in view of Skeen. These claims all depend, directly or indirectly, from claim 17 and include additional recitations thereto. Accordingly, Applicant respectfully submits that the rejection of claims 18-22 under 35 U.S.C. § 103(a) as unpatentable over Su in view of Skeen is improper for at least the reasons stated in connection with claim 17, and should be withdrawn.

Claim 23 was rejected under 35 U.S.C. § 103(a) as unpatentable over Su in view of Skeen. Applicant's amended claim 23 recites, in part, a computer readable medium having a program encoded thereon adapted for use by a processor to utilize

a thesaurus and dictionary provided in combination with taxonomy definition in which the dictionary unpacks the meaning by means of paraphrase and exemplars and the thesaurus display wordings through which meanings can be aptly expressed, wherein the dictionary is constructed using five semantic rules:

  minimized ambiguity;

  functional clarity;

  lowest common denominator semantics;

  a distinction of silent from active tag-concepts; and

  comprehensive internal cross-reference.

Neither Su nor Skeen, nor the combination thereof, teaches or suggests each and every recitation of Applicant's amended claim 23. For instance, neither reference teaches or suggests a dictionary constructed using the five semantic rules of minimized ambiguity, functional clarity, lowest common denominator semantics, a distinction of silent from active tag-concepts, and comprehensive internal cross-reference.

In connection with Applicant's previous claim 27 (now cancelled – also referencing the similar recitations of Applicant's previous claim 11), the Examiner appeared to assert that Skeen discloses these recitations (see Office Action, pp. 30, 34). In particular, the Examiner references paragraphs [0003], [0007], [0016], [0064] and [0134] of Skeen. Applicant respectfully disagrees that any of these paragraphs teaches or suggests a dictionary constructed with the recited semantic rules.

Paragraph [0003] offers some general background on the Internet and XML, indicating that XML can include tags. Nothing in paragraph [0003] references a dictionary, at all, much less suggests semantic rules for constructing one.

Likewise, paragraph [0007] gives a background example of one situation requiring XML document conversion (notably, an example in which both the original and converted document would have the *same* structure and semantics), but not within the context of a dictionary or the semantic rules thereof.

Paragraph [0016] provides examples of some existing transformation applications and general principles underlying their use, but is silent on what dictionaries (or their semantic rules), if any, are utilized by these applications.

Paragraph [0064] makes the general observation about the nature of artificial vocabularies relative to "their natural analogues." One of these observations is that such vocabularies are designed with "less ambiguity." While this paragraph admittedly employs a word from one of Applicant's recited semantic rules, Skeen's observation that artificial vocabularies are designed with "less ambiguity" than natural ones has no bearing on what semantic rules might be applied in a dictionary used in transformations between two data schemas – unless perhaps to teach away from the need to be concerned with minimizing ambiguity.

Paragraph [0134] refers to vocabulary and ontology dictionaries, but only to make the point that systems requiring each "partner" to maintain relevant dictionaries for all other partners is often burdensome and unattractive (and, notably, unlike the present invention), because a large number of dictionaries may be required. Nothing in paragraph [0134] suggests anything about the semantic rules embodied by any of these dictionaries.

Thus, neither Su nor Skeen, nor the combination thereof, teaches of suggests each and every recitation of Applicant's amended claim 23, nor is there any valid rationale to modify or combine the prior art references to do so. Accordingly, Applicant respectfully submits that the rejection of claim 23 under 35 U.S.C. § 103(a) as unpatentable over Su in view of Skeen is improper for at least these reasons and should be withdrawn.

Claims 24-27 were also rejected under 35 U.S.C. § 103(a) as unpatentable over Su in view of Skeen. These claims all depend, directly or indirectly, from claim 23 and include additional recitations thereto. Accordingly, Applicant respectfully submits that the rejection of claims 24-27 under 35 U.S.C. § 103(a) as unpatentable

over Su in view of Skeen is improper for at least the reasons stated in connection with claim 23, and should be withdrawn.

Claim 28 was rejected under 35 U.S.C. § 103(a) as unpatentable over Su in view of Skeen. Applicant's amended claim 28 recites, in part, a method for extending the range of useability of ontology driven systems and for creating interoperability between different mark-up schemas for the creation, location and formatting of digital content, wherein organizing digital mark-up or computer software tags of the first digital mark-up or computer software ontology into an overarching interlanguage ontology capable of absorbing and incorporating at least one other digital mark-up or computer software ontology includes applying the filter mechanisms of:

taxonomic distance for determining whether the relationships of composition and superordination are too distant to be necessarily valid,

levels of delicacy for determining whether an aggregated data element needs to be disaggregated and re-tagged,

potential semantic incursion for determining identifiable sites of ambiguity, and

translation of silent into active tags or vice versa for determining the level in the hierarchy of composition or superordination at which data needs to be entered to effect superordinate transformations.

Neither Su nor Skeen, nor the combination thereof, teaches or suggests each and every recitation of Applicant's amended claim 28. For instance, neither reference teaches or suggests applying all of the recited filter mechanisms (taxonomic distance, levels of delicacy, potential semantic incursion and translation of silent into active tags).

In connection with similar recitations in Applicant's previous claim 7, the Examiner appeared to assert that at least one of these filter mechanisms is disclosed by Su (see Office Action, p. 23). Applicant's are not sure which of the recited filter

mechanism(s) the Examiner believes to be disclosed, but notes that the Examiner's remarks along these lines appear simply to indicate that Su discloses a composition mechanism and a superordination mechanism. However, even if the Examiner is correct, the mere presence of both these mechanisms does not teach or suggest any of the recited filter mechanisms or their application. Moreover, Su would still not teach or suggest _all_ of the applied filter mechanisms recited by the amended claim 28.

Thus, neither Su nor Skeen, nor the combination thereof, teaches of suggests each and every recitation of Applicant's amended claim 28, nor is there any valid rationale to modify or combine the prior art references to do so. Accordingly, Applicant respectfully submits that the rejection of claim 28 under 35 U.S.C. § 103(a) as unpatentable over Su in view of Skeen is improper for at least these reasons and should be withdrawn.

Claims 29 and 30 were also rejected under 35 U.S.C. § 103(a) as unpatentable over Su in view of Skeen. These claims all depend, directly or indirectly, from claim 28 and include additional recitations thereto. Accordingly, Applicant respectfully submits that the rejection of claims 29 and 30 under 35 U.S.C. § 103(a) as unpatentable over Su in view of Skeen is improper for at least the reasons stated in connection with claim 28, and should be withdrawn.
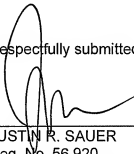
Having addressed and/or traversed each and every objection and claim rejection, Applicant respectfully requests that the objections and the rejections of claims 1-30 be withdrawn, and claims 1, 6-17, 20, 22-23, 25-26 and 28-30 be passed to issue.

Applicant respectfully submits that nothing in the current Amendment constitutes new matter. In particular amendments to claims 1, 6-17, 20, 22-23, 25-26 and 28-30 are fully supported by the original disclosure of the application.

Beyond those fees already submitted herewith, Applicant believes no additional fees are due in connection with this Amendment and Response. If the event any additional fees are deemed necessary, authorization is hereby granted to charge any such fees to Deposit Account No. 01-0484.

Respectfully submitted,

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